

Enviro-history, Neo-conservation and the Preferred Habitat of Half-collard Kingfisher (*Alcedo semitorquata*) in South Africa

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Figure 1. With kind permission from W. Tarboton (2016).
<http://www.warwicktarboton.co.za/birdpgs/430HCKnf.html>.

Since everything is important, replace 'or' with 'and'.
(Doug Charlton, March 2016.)

Abstract

Scientists estimated that by 1995 more than 50% of South Africa's wetlands had been destroyed and lost. Subsequent research reported on a range of variables: that academic estuarine research in South African is declining, that estuarine water quality is deteriorating, the preferred habitat of Half-collard Kingfisher is increasingly being fragmented, their population numbers had been declining at a rate of 30% over the last 10 years, and there is no proactive conservation plan in place for this bird species. The proposal herein is an enviro-historical approach that neo-conservation *praxis* should be developed that can contribute to mitigate the path of Half-collard Kingfisher to extinction in the near future.

Key words: Critical Theory, neo-conservation, Capitalocene, fragmentation, destruction, habitat loss, enviro-history, estuaries, Half-collard Kingfisher, preferred habitat, domination.

1. Introduction

If this epigraph is correct, then the suggestion that the processes of human cognitive understanding that are already intricate – do not stand separate from our understanding of the integrated ‘everything’ complex around us. Humans cannot separate themselves from an understanding of history, regardless of how trivial that consciousness might be or what form of history evokes (or not) interest. Human historical consciousness points at an awareness of the interconnectedness of the complexity of life at different structural levels in society. The conservation of the preferred habitat of Half-collard Kingfisher means something rather different for conservationists, compared to the local rural communities that need firewood to cook food or having to boil water before it is safe for human consumption (Prestholdt in Trentman 2012: 86–108; Mc Lennan and Munslow 2009). Fortunately, the history of this reality about a premium on conservation has however shown that when local communities are involved and empowered to contribute to conservation *praxis* that impact on their lives, then the results are usually mutually beneficial.

In its broadest sense, an understanding of the conservation complex is to ensure the continuation of living – in this study, that of Half-collard Kingfishers. As a result, Charlton challenges traditional knowledge that strives for inclusive *wisdoms* by connecting ‘everything’s’ with the conjunction ‘and’, instead of ruling acquired *knowledge* ‘out’, by using the conjunction ‘or’. This article attempts to point towards new thinking about the philosophy of conservation biology through the lens of enviro-history as it pertains to Half-collard Kingfisher in South Africa.

Fry (1980: 57) argued that the probable origin of ‘the kingfisher fauna of the Afrotropical region [...] is the result of multiple invasions’ from Malaysia, ‘approximately between Indochina and the Coral Sea’. There are, however, according to Fry (1980: 57) also the views that their origin is linked to ‘the substantial amount of mixing between the African avifauna and those of the Oriental and Palearctic regions’ and secondly, to ‘catastrophic extinctions due to repeated fragmentation and elimination of forest during the Pleistocene era’ – some 2 mya (Rust in Lubke and de Moor 1988: 14).

But there are some inherent dangers in ambitious ideals of understanding and writing an enviro-history of Half-collard Kingfisher’s preferred habitat. Firstly, it seems that similar enviro-historical research has not been done before and working off no benchmark is risky. Secondly, the attempt to develop a concept of neo-conservation is provisional at best because the building blocks therefore is drawn upon from outside traditional conservation theory that appears to be in its early developmental stage. This concept needs to be explanatory, practical and normative, all at the same time (Bohman in Rasmussen 1996: 190). Thirdly, dealing with the facts (Engelbrecht 2013a: 1–12) and theory (Engelbrecht 2012a: 1–12) of the matter, does not easily overcome the reality that ‘[a]ccess to the past is always mediated, and, thus, always partial’ (Ginzburg 2013: xii). This bit-by-bit accumulation of an understanding of the preferred habitat of Half-collard Kingfisher is clear from the literature dealt with herein.

Because Half-collared Kingfisher's (*Aleco semitorquata*) regional conservation status in southern Africa was reported as early as 2015 as Near Threatened (Peacock in Taylor *et al.* 2015: 311–313; **Taylor *et al.*** in Taylor *et al.* 2015: 26–28; Taylor in Taylor *et al.* 2015: 275–277), the purpose of this article is to present an enviro-historical context of this habitat whilst keeping in mind that South African historiography is characterized by diverse schools of historical interpretation and methodology (Saunders 1988; Smith 1988; Wright 1977). Despite diverse historical interpretations, Tony Kirk wrote that '[a] central feature of southern African history in the nineteenth century is the displacement of indigenous peoples from their lands by expansion of white settlement' (Kirk in Marks and Atmore 1980: 226). It remains logical that this process left environmental scars – be it as a result of forest plantations (Fig.2) in KZN or pineapple farming (see Fig.3) in the Eastern Cape. Figure 4 shows the typical vegetation that would have been altered in the advent of land required for cattle grazing.



Figure 2: Forest plantations in KwaZulu-Natal.

Source: Google images: Agric.co.za
south-africa-winterskloof-to-st-lucia/



Figure 3: Pineapple plantations in the Eastern Cape close to small fast flowing stream.

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Figure 4. Eastern Cape vegetation sacrificed for cattle grazing.

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In 2005, Turpie described the habitat of Half-collard Kingfisher in southern Africa as ‘[c]lear, fast-flowing perennial streams, rivers and estuaries, usually narrow and secluded, with dense marginal vegetation; often near rapids. Also well-vegetated lake shores and coastal lagoons; fishes in saltwater in Eastern Cape’ (Turpie in Hockey *et al.* 2005: 173). At Nature’s Valley along the Kap River, Ginn (1970: 19) described his observation at ‘quiet backwater on the lagoon’. Turpie based this summary on information of some 20 references listed at the end of her contribution to *Roberts VII* about this species. Warwick Tarboton’s publication (2014: 160) on nests and eggs of most southern African birds, confirms professor Turpie’s account. According to Parker (1999: 165) the habitat is ‘particularly places where the vegetation almost encloses the waterway’. To this, Peacock (Peacock in **Taylor et al.** 2015: 312) added ‘well-vegetated banks of lakes [...] small dams and wooded streams and canals in urban and suburban areas’. From the above it is clear that the history of describing Half-collard Kingfisher’s preferred habitat, goes back almost 200 years to 1823 when Swainson first described them at the Great Fish River of the Zuurveld in the Eastern Cape. However, according to Moreau (1944: 161) by the mid-1940s there was still very little written about Half-collard Kingfisher. A full ornithological history of the Half-collard Kingfisher remains to be written.

Of fundamental importance regarding the habitat of Half-collard Kingfisher are the conservation measures proposed in *The 2015 Eskom Red Data Book of Birds of Southern Africa, Lesotho and Swaziland*, namely to ‘[c]onduct surveys of river systems to obtain more accurate estimate of their population size and habitat requirements’ and to ‘[a]ssess impacts of human-induced modification to rivers on this species and other riverine specialists’ (Peacock in Taylor *et al.* 2015: 313). As our daily worldmaking continues to strive towards a ‘better’ world (for humans and non-humans), decisions that go to the essence of human *praxis* include or exclude things that we should or should not do in the name of ‘progress’ or ‘development’. But, the way we live our lives impacts on all life forms. The

effect thereof on Half-collared Kingfisher – at least from an enviro-history perspective, prompts new thinking about conservation *praxis*.

Environmental and conservation studies and industries are at present inundated with dilemmas concerning human and non-human relationships and how to balance them in everyday practical life for a sustainable future. Some would argue that the rise of modern science with its own philosophy, scientific methodologies and objectives (Engelbrecht 2014a: 1–17) are at the root of this problem. This suggests that humans categorize, sort by similarities and leave out the dissimilar in pursuit of ordering for a ‘better’ understanding about our worldmaking. For example: The historically popular division of intellectual labour that places natural/physical science in one category and for example philosophy into another is inconsistent with commensurable discourses about human perceptions of both scientific study and about life in general. As a result, the manner in which we deal with scientific *praxis* is not mutually exclusive from our life-views. This means that we do not work with environmental sciences in one pigeonhole, philosophy in another and the history of the environment in yet a further. But *still* we continue to bring various forms of life, all sorts of human and non-human behaviour, as well as rational scientific progress, under empirical (positivist) laws of different kinds (Hempel 1970; Taylor 1970; Dray 1979; Popper 2005; Popper 2009a; Popper 2009b).

Whilst it is true that social sciences might not have found its own Galileo (Popper 2005: 1) – as if humans are seemingly better off in an era of unparalleled hi-tech scientific and technological limitations – it appears that social sciences have not been caught up in the restrictive complexities as the natural sciences seem to be subjected to. But amongst philosophers, Karl Popper was not the first to have argued in favour of the unity of scientific method (Popper 2005: 120). Calls for interdisciplinary collaboration date back to ancient Greek philosophy, and in the beginning of the 20th century, interdisciplinary collaboration became the centre piece of for example Critical Theory of the Frankfurt School (Horkheimer 1993: 1–14) that in one manifestation or another, found its way into various contemporary socio-economic, environmental and natural sciences.

If the above paradigm withstands scrutiny, then the application thereof to an enviro-historical investigation of the context of Half-collared Kingfisher’s literature about their preferred habitat in South Africa seems useful. The ‘and-for-or relationship’ of ‘everything’s’ introduces new possibilities through enviro-history for conservation biology in particular but also for sustainability of life in general. An understanding of human wellbeing acknowledges the anthropogenic impact on this planet’s biosphere as well as conservation sciences as being the drivers for enviro-historical consciousness and comprehensions of the environmental Other. This ‘and-for-or relationship’ renders human *praxis* an all-inclusive existential that blurs popular boundaries between sciences of traditional and critical nature. Hence, there is a historical component to our future philosophical conservation frameworks and actions, including how to preserve lifeforms. For these reasons this article’s fundamentals stem from the philosophical and methodological foundations in the rise of enviro-history. This foundation relates to the development of the concept of neo-conservation (Engelbrecht

2016a) that asks questions that are ‘possibly more significant than questions simply about the degradation of nature (Moore in Moore 2016: 5). Mark Maslin (Barry and Maslin 2016: 2) describes it as follows: ‘I would argue that the *inclusivity* of the Anthropocene concept allows scientists to urge for political actions that address issues that include but also go beyond climate change.’

This meta-historical approach of enviro-history drills deeper into how humans have been affected by the natural environment in the past, but also how humans have dominated and affected the environment without excluding the negative consequences thereof. The history and status of South African environmental history has been well documented (Dovers *et al.* 2002) and this article benefitted from its historical contributions. Because history is (also) the study of change over time, the challenge is to reflect how the knowledge of Half-collared Kingfisher’s preferred habitat in South Africa developed and grew particularly during the mid-1930s that marked the take-off of scientific ornithological research.

The enviro-historical que for this article is taken from one of the research priorities proposed for Half-collared Kingfisher in *The 2015 Eskom Red Data Book of Birds of Southern Africa, Lesotho and Swaziland*, namely, to ‘[c]onduct surveys of river systems to obtain a more accurate estimate of their population size and habitat requirements’ (Peacock in Taylor *et al.* 2015: 313). The development of a species specific survival strategy depends on the eradication of the data deficit about Half-collared Kingfisher as it relates to the population size and specie’s needs. The suggestion in *The 2015 Eskom Red Data Book of Birds of Southern Africa, Lesotho and Swaziland*, is that river surveys can generate the required information to address these three shortcomings. Finally, in environmental conservation terms, this implies that a species specific conservation plan, based on the inclusiveness of the ‘everythings’, should follow. According to BirdLife International, species action plans make a meaningful contribution to conservation efforts. It promotes the needs to further conservation efforts limited to specific sites. The BirdLife Africa Partnership defines Species Action Plan as ‘a scientifically authoritative, strategic document that defines specific, measurable objectives and actions for conserving priority species. It should set achievable, time-bound goals and involve all appropriate stakeholders’ (Sande *et al.* 2005: 2). The moment it enters this level in society, it finds itself in the public socio-political domain’s debates about the authoritative allocation of scarce resources (Easton 1965) in contested spaces.

The enviro-historical perspective in this article, points at the interdisciplinary nature of modern-day research. More than 20 years ago, this methodology was outlined as follows: ‘conservation problems span several disciplines. Effective resolution of conservation problems require professionals to think across disciplines rather than along strict disciplinary lines’ (Touval and Dietz 1994: 902). For others ‘[w]e need to work together, or even “leap together”, across traditional disciplinary frontiers or polemical stances, in order to find innovative solutions that counter the prevailing ideological divide separating economics and ecology’ (Aronson *et al.* 2006). Conservation is too important to leave it only to conservation biologists. This enviro-historiographical approach straddles

the advantages of traditional and Critical Theory (Engelbrecht 2013b; Engelbrecht 2013c). It promotes the greater integration of social sciences in future conservation research projects because all sciences are effectively interrelated. The contributions by enviro-historians do not have to compromise analytical utility of other sciences, but instead, can contribute significantly to other fields of research. The most important proposition is probably that conservation sciences rely heavily on a historical component for the attainment of its present and future objectives.

Enviro-historical *praxis* and that of conservation biology takes place at a certain time and within a particular contested space. As a result there is an important debate about spacio-temporal limitations because it goes to the root of the philosophical underpinnings (past, present and future) of both. Traditional views regard environmentalism as atmospheric – study the environment’s context, conditions and the outcomes of human social relations, they say, and this will lead to a working framework for analysis. Such views (Moore 2016) regard the Earth’s systems to be on a threshold that represents a ‘state shift’ that can no longer be interpreted simply as a condition of a ‘bad’ climatic circumstance. The accompanying fundamental changes in the Earth’s state of affairs (equilibrium) go further than the simplistic realization of a state of ‘crises’. The contention is that current thinking should move away from this restrictive Anthropocene concept. Accordingly, the Anthropoceneists ask questions about how humans fit into the relatedness of life. For them, the following equation seems sufficient:

Capitalism + nature = how human organisations and processes continue to shape planetary life.

Anthropoceneists see society and nature as two separate components of existence that can be added together to reach a conclusion. Since domination and oppression are typical of such world, the accumulation essence of capitalism cheapens nature because it generates better profit results in line with the requirements of political economics that determine that material goods must be non-expensive. This dualism has a long historical background that is at the centre of the Anthropocene’s geological time: nature is put to work for and in capitalist life, and nature’s degradation is the result thereof (Moore in Moore 2016: 1–5). Pro-Anthropoceneists argue that this is a closed socio-economic system.

Others argue that we live in the geological time of Capitalocene. Capitaloceneists argue *beyond* capitalism as a closed socio-economic system. For them *it is the* way of worldmaking. They see the current dismal biospheric circumstance, as *more* than a throwback of capitalism. Their argument is that capitalism *is a particular manner* in which nature is organized in a dominated form – one that *is* a capitalist ‘world-ecology’ of multi-species (Moore in Moore 2016: 6). From this view the Capitalocene *is* the ‘Age of Capital’ (after Eric Hobsbawm: *The Age of Capital 1848–1875*) that wields its own hegemonic power of forces of production and nature over all the living. Today, the Capitalocene *is* known by accumulation through extinction. The result is an ecological debt (Moore in

Moore 2016: 6–11) – one that cannot be settled because we extract from nature more than can be returned. The difference is that the outcomes of capitalism for Anthropoceneists are the *results* (consequences) *of a system*; for the Capitaloceneists, such *results are the system*. Peter Raven described this in the following manner: ‘we’re using up the earth’s stocks of resources faster than we are replenishing them. We would need several more planets the size of this earth to support our insatiable consumption and conversion of natural capital in the medium term’ (Raven in Aronson *et al.* 2007: xi). From a historical perspective, this does not bode well for the conservation of Half-collared Kingfisher’s sensitive habitat requirements because their population numbers in South Africa continue to decline.

The above broad philosophical perspectives do not stand independent from research about birds or humans’ everyday observations about biodiversity. One view is that ‘[t]he traditional approach to river conservation has been focussed toward maintaining the physical habitat that provides the template for the biota. With a shift toward recognising the catchment as the primary operational unit for the conservation and management of lotic systems, an examination of the biological relevance of these catchment units is required’ (Wishart 2000: 169). This is a typical blurring of traditional scientific boundaries in favour of a more productive and seamless interrelationship between them that unsettles the notion of ‘science capture’.

The rest of this article is divided into a brief outline of the concept ‘habitat’, followed by the influences of hunters, forests and estuaries on the status of Half-collared Kingfisher preferred habitat narrative. The fourth section deals with macro spaces, Critical Theory and soundscapes, how we deal with them and their implications for this study. It also makes comments about neo-conservation. The fifth and last section covers some of the literature that pertains to the preferred habitat of Half-collared Kingfisher. In concluding, further observations are made that preventative (or proactive) neo-conservation is a meta-requirement for existing conservation *praxis* that plays itself out in the noösphere (Crist in Moore 2016: 17). The reason for new thinking about conservation is profound since if *conservation* is the emphasis, then ‘[u]nfortunately, conservation interventions often only take place only once as species’ extinction risk has been determined and quantified’ (Taylor *et al.* 2015: 9).

2. Definition of a habitat

Because of different approaches in defining the word ‘habitat’, there is no standard definition for either ‘habitat’ or ‘habitat selection’. The same applies to the term ‘ecosystem’ (Thompson in Dovers *et al.* 2002: 195).

Originally the word habitat was used to describe where a single plant or animal species lived. In essence, habitat refers to the ‘place’ or ‘environment’ in which specified organisms live their lives, e.g. on a mountain, a cave, ocean or flower. Today, even in hi-tech environments some networking

and graphic environments are sometimes referred to as ‘virtual habitats’ or a ‘tech-world habitat’ in which cybernetic virtual communities are considered as synonyms with real life habitats.

The origin of the word habitat dates back to c. 1755–1765 when in Latin, *habitāre* meant ‘to dwell’. At about 1762, it also served as a technical term in Latin texts to refer to flora and fauna. *Habitēre* however, meant ‘to have’ and about a century later, by 1854, the English word habitat generally meant a ‘dwelling place’. In contemporary life sciences, habitat denotes the natural area, a place, site or a home environment in which an organism or community of organisms (also called a biological population), normally lives or are found. Habitats are classified into two broad categories. Firstly, terrestrial habitats: where organisms live entirely on land, e.g. forests, grassland or deserts. Terrestrial animals include ants, flies and tetrapods, including amphibians, reptiles, birds and mammals. Secondly, aquatic habitats: where organisms live in water bodies. This includes animals and plants that live in fresh water, salt water, or brackish water. The ‘place’ of living is characterised by its biotic (non-living physical factors: e.g. soil, water, moist, temperature, light, etc.) and biotic (living) factors.

Describing a habitat dates back to the days (c. 1823) when Swainson first described Half-collard Kingfisher at the Great Fish River. The existence of healthy fresh water habitats e.g. streams, ponds, rivers, lakes, estuaries and dams are vital for the survival of Half-collard Kingfishers. In these (and other) water regimes, some dominant biotic factors arise from the activities of other living organisms: e.g. food availability from plants and the presence of predators add to the habitat complex of Half-collard Kingfishers. The suggestion is that ‘place’ is not necessarily a neatly defined geographic area, although it remains a physical location. It is an ecological or environmental space that sustains life in terms of food, is a place of shelter that provides protection, and is conducive for reproduction. Although habitats differ vastly in size, they are also in a state of constant change – changes in and to the environment to which inhabitants either adapt or die.

In order to overcome the potential threats to life, humans have historically protected, conserved and restored habitats, but not necessarily at a scope and pace that sustain life. In rather small habitats, micro-habitats develop from other local or immediate ‘mini-’ habitats of a particular organism or micro-organism(s). This implies macro-habitats (e.g. forests, oceans, freshwater bodies, grasslands, wetlands, polar-regions, deserts, mountains, built habitats) that house a vast array of unique micro-habitats of different sizes. Each micro-habitat has its own distinct set of special environmental conditions and sets of characteristic features, e.g. in an estuary habitat (macro-), there are different micro-habitats depending on e.g. salinity, oxygen content, temperature, pH composition, turbidity, speed of water flow or pollution. Habitats are special places that are limited in scope that share common space. The organisms that live in habitats vary across scales of space and time for their survival. This heterogeneous use of habitats according to availability (Ashkenazi 2001: 10), also extends to Half-collar Kingfisher that includes the use of temporary ponds and estuaries. It is the wide-ranging special assemblages of habitats (Turpie in Hockey *et al.* 2005: 173) of Half-collard

Kingfisher in southern Africa that have one common denominator – water. It is for this reason, that estuaries, forests and plantations are the dominant regimes in this discussion.

3. Half-collard Kingfisher: hunters, trees and water

A decade into this century, Barham and Mitchell (2008: 1) argued that humans have been inhabiting Africa longer than elsewhere on Earth some 6–7 mya, but in southern Africa, for only about 3 mya (Mitchell 2002: 1). However, large-scale habitat destruction beyond sustainability levels is a 20th century phenomenon with the history of conservationism and environmentalism *praxis* that does not function in a vacuum – their histories date back a few centuries to the late modern period of the mid-18th century – although at varying levels of sophistication. This implies the dynamic nature of their conceptual developments over less than 200 years that point towards the environmental spaces in which Half-collard Kingfishers live. Nature is always changing – currently however, at the fastest rate ever – and so are the histories of woodlands, forests and water that pertain to Half-collard Kingfisher.

South African (political, social and economic) historiography often refers to written and oral reports (Legassick 2010a: 1–4) of early white settlers’ encounters with nature and biodiverse ‘open’ spaces that were sparsely populated when Europeans arrived from the 16th century at the subcontinent. The debate about which population group occupied what stretches of land when, and who occupied such land first (Peires 2010: 66–68) and are therefore the rightful owners, is far from over. In other words: ‘While history has always been shifting and contested terrain, current debates about who ‘owns’ history and heritage and who has the ‘right’ to speak for cultural diversity, are today more heated than they have been in the past’ (Carruthers 2005a: 8). This means that the history of pre-colonial South African inhabitation, shows the dependency on and close interaction with, its natural environment as well as the rich biodiversity that sustained their living. This is because cultural, political, economic and religious beliefs are deeply imbedded in our non-human (physical) environment (e.g. Walker 1959: 1–100; Wilson in Wilson and Thompson 1969: 40–182; De Kiewiet 1972: 1–29; Boëseken in Muller 1986: 18–34; Peires 2003: 72–88; Thompson 2007: 1–30; Legassick 2010b; Mitchell 2002: 5). The literature often refers to the abundance of wildlife (Pons 2000: 18–20; Bulpin 1980) that early settlers and those who followed them, admired.

Less well known is that in March 1647, ‘what was probably the world’s first environmental report concerned the Cape and [...] was commissioned by the Dutch East India Company (VOC) in connection with southern Africa’ (Carruthers 2009: 3). It is also important to remember that Charles Darwin arrived on 31 May 1836 at Simon’s Bay and the following day travelled to Cape Town where he visited Sir John Herschel who was in charge of the new Royal Observatory. Darwin documented the abundance and diversity of the natural life that he experienced during his three-week stay at the Cape (Darwin 1992: 79–84). Based on these, James (2009: 395) described Darwin’s writings as follows: ‘He kept a special geological notebook in which he described in considerable detail his

geological and geographical observations of the road from Simons town to Cape Town, Table Mountain, Lion's Head and Rump, Sea Point Contact, the road to Paarl, Paarl Rock, the Drakenstein Mountains, Franschoek and the pass to Houw Hoek, Sir Lowry's Pass and the Cape Flats.' On 18 June 1836 HMS *Beagle* left for the island of St Helena.

Fortunately, historians are often in the envious position to be able to 'draw on substantial documentary evidence from seventeenth century onward, written by survivors of shipwrecks, explorers, traders, missionaries, and pioneer settlers' (Thompson 2007: 15; Walker 1965: 14; Mitchell 2002: 4) about hunting 'the abundant game population' (Thompson 2007: 16; Walker 1965: 35; De Kiewiet 1972: 13) of the sub-region. By the time that the British Settler, Henry H. Dugmore arrived in the Zuurveld in mid-1820,

'[e]lephants in hundreds roamed leisurely from the Kooms to the Kowie',
 'rhinoceros crushed at will the thickets of the Fish River ravines', '[l]ion
 stalked in undisputed sovereignty on the slopes of the Winterberg', 'howl
 and laugh of the hyena', 'shrill yell of the jackall', 'tiger's deep bass
 sounded for hours together among the kranzes', 'responsive call of the
 wild dog', 'armies of baboons', 'springboks in thousands' – but by then
 'the long-range rifles [...] had not then arrived' (Dugmore 1990: 10).

The Rev. William Shaw wrote at least on two occasions in August 1822, how some areas of the Eastern Cape were 'infested with elephants' (Sadler 1967: 38, 42). The introduction of guns and horses to the South African society changed European technological superiority (Legassick 2010b: 3; Legassick in Elphick and Giliomee 1980: 243–290; Legassick in Marks and Atmore 1980: 44–79; Leśniewsk 2010: 11–26) in political and in environmental terms. By 1689 'the Company imported some stud horses from Persia' to improve the quality of the 'horses brought from Java [that] had increased greatly in number, but had fallen off in size and appearance [...]. At the same time some Persian asses were introduced' (Theal 1890: 74). On 4 June 1820, Thomas Phillips wrote a letter to order 'double-barrel Guns, muskets and rifles, but not *small* fowling Pieces, lead and bullet moulds, strong powder, buck shot, and shot for Partridges and snipes, the latter are for our own amusement' (Keppel-Jones 1960: 69). In late January 1823 he wrote that '[g]ulls like the European, Sand Larks, Curlews, Spoon-bills and Cormorant fly about us' (Keppel-Jones 1960: 167) at the Fish River. Six months later, on 7 July 1823, they hunted Black Korrhan, Pheasants, Guinean Fowl, Wild Ducks and Turtle Doves (Keppel-Jones 1960: 191), and that '[s]parrows were very numerous and very like the European, they seem to build in the Thorns. A blackish kind of swallow flew along the Fish River and which they tell us comes in winter only' (Keppel-Jones 1960: 195). Guest wrote: 'In his [Delagorgue's] opinion the "civilization" which they [missionaries] so proudly purveyed was of dubious value to those who had previously managed without it, imposing upon their simple lifestyles

unnecessary comforts at the price of numerous avoidable complications. The impact on the natural environment was. The weapons of “civilized man” quickly decimated the *fauna*’ (Guest in Delagorgue 1997: xiii).

Then ‘began the romantic period of the Frontier Settlers’ history, the formation of elephant hunting parties (Dugmore 1990: 18) and that ‘[l]ion parties crossed the Winterberg range’ (Dugmore 1990: 20). But there were also gruesome events. For instance, in mid-December 1825, Thomas Phillips, then being part of a lion-hunting party, reported:

‘At length Christian fired! The underjaw of the Lion dropt, blood gushed from his mouth, and he turned around with the view to escape. Mr Rennie then shot him through the Spine – he fell – [...] Stephanus put a final period to his existence by shooting him through the Brain [...]. My Trophy was the underjaw and teeth’ (Keppel-Jones 1960: 273).

Forty years later in the mid-1860s, A.A. Anderson recalled:

‘Game of various kinds in plenty, lions were common, elephants, buffaloes [sic!], elands, wildebeests, quagga, and other antelopes, were numerous on the plains and long flats : leopards – here called tigers – wolves, jackals, and other beasts of prey, were heard nightly in the bush ; and in the open rolling plains, under the Drakensberg range of mountains, that flank the western and northern boundary of the colony, spring- and blesbok, quagga and the gnu could be counted in thousands. Where are they now ? Cleared from the face of the earth by the rifle, so that scarcely one is left, and those preserved so that they should not be entirely exterminated’ (Anderson 1888: 5).

In 1864, Anderson wrote that at a particular outspan along the Vaal River in the Bloemhof area, he ‘shot three varieties of Kingfishers, one very large and one of gray colour. [...] there are many beautiful birds along the river [...] we found plenty of sport’ (Anderson 1888: 49–50). In the late 1860s ‘[m]en loved to go on commandos: out into the spreading wilderness, shooting for the pot, free from care, burning semi-dried wood at night in the campfires, telling stories of hunting, love, and war’ (Chilvers 1929: 4), and how ‘[i]n the wild, wooded ravines of the Northern Transvaal ... made a romantic setting for the prospector, resounding as it often did with the trumpeting of elephant, the barking of baboons, and the cries of animals seized by lions as they crept fearfully down to the watercourses’ (Chilvers 1929: 9).

The above did not take place in the absence of other developments. Land-ownership and commercial business interests of whites stretched well into the domain of the natural environment. By the end of the 19th century ‘Natal already represented one of the many peripheral sectors of a single expanding world capitalist economy’ (Slater in Marks and Atmore 1980: 148). This was a period of change linked to the interaction of various social groups with particular economic self-interests. Hunter-traders from the Cape and Eastern Cape into Port Natal were forerunners of white commercial farming that changed the political economy of Natal. Eventually, the natives Land Act of 1913 sealed the privileged economic position of the whites at the expense of black land-ownership (Slater in Marks and Atmore 1980: 149–164).

A study in the early 2000s by Harald Witt about the early history of privately owned tree plantations in KwaZulu-Natal, argued that private commercial agriculture and state owned forests formed the basis for wattle production in the early years of a budding culture of a tree-growing industry in the province. However, during this time the private sector could not supply in the ever-increasing timber demand, and the state stepped in to ensure sufficient supply of timber. The Botanical Gardens in Durban were established in 1851 and in no small measure ‘facilitated the movement of alien plants, including trees, in Natal’ (Witt in Dovers *et.al.* 2003: 92). By the end of the 19th century, there were at least four privately owned nursery gardens near Pietermaritzburg that ‘sent out between 200 000 and 300 000 young forest trees a year’ (Witt in Dovers *et al.* 2003: 92). But ‘[s]tate participation in extensive tree-growing in Natal only began on a systematic basis at the turn of the [19th] century’ (Witt in Dovers *et al.* 2003: 92). By c. 1902 there were 34 574 acres of wattle in natal and 1 075 acres in Zululand. Three decades later, hardwood plantations started to dominate in Zululand and the Natal Midlands (Witt in Dovers *et al.* 2003: 92–93).

The impact of successful wattle-growers motivated some of progressive farmers to support the enthusiasm of ‘transforming Natal into a timber-growing country’ (Witt in Dovers *et al.* 2003: 98). Unproductive and inaccessible land was converted into productive farmland. By the Second World War, the promotion and commercial tree-growing in Natal and Zululand was reasonably successful. Increased mining and timber industry requirements boosted additional timber demand. By the 1960s the state had 105 000 acres of eucalypt and pine plantations in Natal under its control and there were an additional 34 500 acres in African reserves (Witt in Dovers *et al.* 2003: 110) that supplied a growing industrializing economy in a traditionally water- and timber-scarce country. Other factors such as the unintended introduction of pests and diseases, fertilizers, use of insecticides, veld burning practices, and large-scale extraction of groundwater, come into play. They brought new relations in the politics of contested environmental spaces to the agenda.

The forces and relations of early capitalist production from the 13th century onwards, radically changed human consumption, and in many respects continue to decimate the environment. Colonial South Africa, from the arrival of the first Europeans, was no different. To illustrate this, Wakkerstroom’s environment changed because of fire and war practices of humans (Kotze in Dovers *et*

al. 2003). The Kuruman district's natural environment became subject to human colonial practices (Jacobs in Dovers *et al.* 2003) and the impact of white settlers on Durban's environment from the middle of the 19th century, are all well documented (Ellis in Dovers *et al.* 2003).

Given these instances, some argue that as a result, the world today faces a reality that renders all ecologies as critical (Biro 2011). Also, the rise of environmental history in South Africa that seemingly 'grew out of Marxist social history tradition and was launched in the context of the end of the apartheid state and a changing political dispensation from the late 1980s onwards' (Carruthers in Dovers *et al.* 2003: 4), continues to make a valuable contribution to our understanding of the country's environmental past. One of the sources for this investigation refers to the wider world-historical contexts of research themes (Carruthers in Dovers *et al.* 2003: 11) and the relative importance of the local therein. Fundamental to the understanding of the above, are the various forms of domination and inequalities of South African society, before and post-1994. The results thereof are still visible in our historically contested environmental and conservationist practices.

In KwaZulu-Natal, of the 2,1 million hectares of thicket and bushveld habitat, 237 000 hectares are degraded. It is against this background that it was recently argued that Half-collared Kingfisher numbers are declining in KwaZulu-Natal because of increased deforestation, hence the concentration on this region's timber industry.

Regarding the degradation of the Zululand environment, South African historian Jeff Guy wrote: 'by the end of the eighteenth century an imbalance had arisen between population density and the natural resources of the region. This contributed to the radical social changes which took place' in the province (Guy in Marks and Atmore 1980: 103; Marks and Rathbone 1987; Marks and Trapido 1988). As a result the run-up to today's fragmented state of Half-collared Kingfisher preferred habitat in KwaZulu-Natal has a history that stretches at least two centuries. The effect of humans on the pre-colonial South African environment has been realized and written about before Acocks' publication *Veld types of Southern Africa* in 1953. The argument can be summarized as follows: the region's patterns of vegetation were changing from before the arrival of that white-owned farming that left remnants on higher wet ridges and scrub areas that were untouched by fire, along the watercourses and on the coastal belt. When it became impossible to convert forest into grassland, erosion set in, compounded by overgrazing, trampling of vegetation around waterbodies and kraals and frequent or unusual burning of the veld. This suggests that new patterns of plant succession were the result of farming practices over an extended time scale. Eventually shortage of land resulted in serious shortage of a range of resources in the region.

The Eastern Cape Province went through similar environmental changes. With a coastal stretch of some 830 km and having the 'highest number of biomes [fynbos, succulent Karoo, forest, subtropical thicket, Nama Karoo, savanna and grassland] vegetation types of all South Africa's provinces (Griffiths and Dowling in Ruiters 2011: 176–177), its 'marine-influenced terrestrial ecosystems (dune systems, coastal forests and grasslands)' (Griffiths and Dowling in Ruiters 2011: 176), nevertheless remains one

of the ‘most environmental degraded provinces in South Africa, with one of the highest indices of soil degradation, particularly within commercial farmland areas’ (Griffiths and Dowling in Ruiters 2011: 173). Historically, biodiversity concentration, land-use practices have disturbed and led to the loss of the internal biodiverse complex.

From an enviro-historical perspective, and given the national timber shortage, the Eastern Cape Province’s biophysical composition makes it possible to double the current plantation area that are fit for commercial afforestation (DWAF 2007: 3). The distribution of forestry plantations in the Eastern Cape Province is wide and scattered (DWAF 2007: 8) and 130,000 ha makes up 10% of the country’s total forestry plantations (DWAF 2007: 9). Three main reasons for the timber shortage are: loss because of fires, uncontrolled harvesting, and insufficient re-establishing after harvesting (DWAF 2007: 20). Plantations are also at risk from disease, drought, wind, snow, flooding, livestock and vandalism (DWAF 2007: 35), clearing for agricultural and residential purposes (DWAF 2007: 39), and poor management (DWAF 2007: 40; Ngoma in Mc Lennan and Munslow 2009: 191).

The history of forestry plantations of the Eastern Cape Province dates back to the 20th century when the state established the first state-owned plantations. With the advent of the homelands (mid-20th century), they were transferred to and managed by the different departments of agriculture and forestry of the homelands. Before the homelands were abolished, Safcol was established as a state-owned company to manage these plantations. As a result Safcol then formed the Mountain to Ocean (MTO) under which Safcol’s Eastern Cape plantations were managed. Finally when the homelands were abolished (1980s), the plantations of the homelands were brought under the control of the Department of Water Affairs and Forestry (DWAF 2007: 9–10). Figure 5 summarizes ownership of a decade ago.

Ownership of Existing Forestry Plantations Area (ha)					
Ownership	Pine	Gum	Wattle	Other	Total
Private	58 733	5 811	15	1 923	66 482
State	45 094	13 329	1 206	306	59 935
Community		2 361	556		2 917
Total	103 827	21 501	1 777	2 229	129 334

Figure 5: Ownership of existing forestry plantations.

Source: (DWAF 2007: 10).

In addition to the above it was estimated that 5 000 ha, mainly unmanaged wattle exists that could be felled and re-established for commercial use (DWAF 2007: 10). In 2003 the DWAF commissioned a Strategic Environmental Assessment (SEA) of the biophysically potential areas that would enhance forestry for commercial purposes of the Water Management Area 12 that included Umzimvubu – Keiskamma and portions of Amathole, Ukahlamba, Alfred Nzo, O.R. Tambo and Chris Hani district municipalities (DWAF 2007: 14). These areas were identified because of their relatively high rainfall

and high forestry potential but with low hydrological impact, and low economic activity (DWA 2007: 14). Figure 6 shows the proposed increased potential forestation areas.

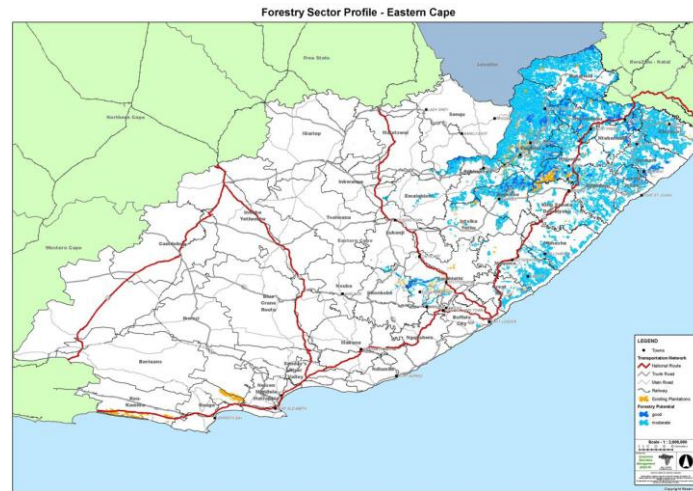


Figure 6: Proposed area for increased forestation.
Source: Google images.

When placed into historical context, it this means that the current lack of information that relates to the quantification of the damage done to indigenous forests' historical deforestation (DWA 2007: 39) in the past, suggests that a clear understanding of a decade's figures about the ratio of hectares burnt and planted (shown below), complicates managing the biomes in which Half-collared Kingfisher must.

	Total ha burnt	Total ha planted
1997–2006	44 690	44 472

Figure 7: Comparison of ha burnt and planted.
Source: DWA 2007: 35.

Half-collared Kingfisher's near threatened status and their ongoing declining population numbers (Fig.9) is suspected to be the result of 'a reduction in the extent and quality of its sensitive riverine habitat. Declines appear to approach 30% over the last 10 years' (Peacock in Taylor *et al.* 2015: 311). In sum, the 'effective range of the species may therefore be in the order of 1 100-2 200 km²' (Peacock in Taylor *et al.* 2015: 311). Because Half-collared Kingfisher needs a specialized habitat 'only and small proportion of its range constitutes a suitable habitat, and territories are widely spread in seemingly ideal conditions' (Peacock in Taylor *et al.* 2015: 311).

Environmental change as a result of resource use and management practises result in periodic and directional changes (Russell *et al.* 2014) are having long-term adverse impacts on preferred habitat. A study on the influence of human impact on the modification of coastal dunes, gives pointers for

consideration in this regard. Researchers Trimble and Van Aarde (2011: 1) wrote that ‘isolated strands of protected coastal forests may be insufficient to their conservation’ and would place the wellbeing of this species under pressure. This adds to the long list of threats that Half-collard Kingfisher faces in South Africa. For the sake of context, these threats are merely stated as: siltation and erosion of its specialised riverine habitats; suspended heavy metals and other pollutants in the water; water extraction and clearing of riparian plant life; ecological impacts of dams and water impoundments; diminished water flow; channel morphology; algal bloom; over extraction; human settlement and overgrazing (Peacock in Taylor *et al.* 2015: 313). In all these instances, water is the common denominator. This is illustrated in the literature of water history and specifically in estuarine research. Allanson’s research (2001: 373–386) about various factors that influence the quality of water in microtidal estuaries of South Africa, explain how estuarine structure and hydrodynamics are altered for four different estuarine types. An enviro-history approach to the literature about Half-collard Kingfisher in South Africa cannot be separated from water history, specifically of estuaries. Should this scarce and important resource be disturbed, the domino effect on sensitive and restricted biodiverse requirements for Half-collard Kingfisher would continue.

The following figure gives an overview of the declining Half-collard Kingfisher population:

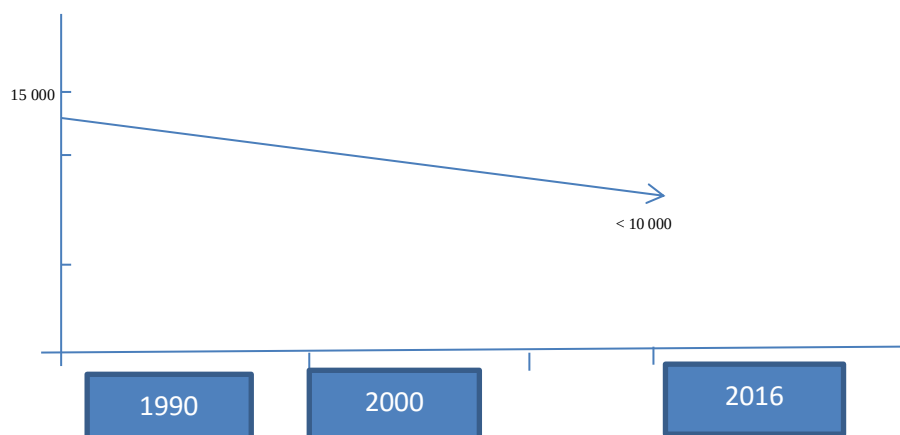


Figure 8. Declining Half-collard Kingfisher population.
Source: Peacock in Taylor *et al.* 2015: 311.

Taylor *et al.* (2015: 21) referred to the problem as follows: ‘they [various conservationists working on different ecosystem levels] will agree that the underlying root of all environmental problems is rapid human population growth and concomitant transformation of natural habitats’. One could argue that life on Earth did just well for 99,9% of the time before humans arrived. Today it is argued that ‘[t]he Earth system now probably operates beyond its normal historic mode’ (Leemans and Costanza 2005: 4). This reality poses challenges for enviro-historians to give an accurate account of their enviro-historical research. To date there are currently no conservation measures that have been developed and put into place (Peacock in Taylor *et al.* 2015: 313) to address the near threatened status of Half-collard Kingfisher (Peacock in Taylor *et al.* 2015: 311). In addition, with the specialized riverine habitats for

Half-collard Kingfisher deteriorating, it is suggested that this continuing trend will continue to impact adversely on their foreseeable population size.

In the early 1980s, more research about estuaries was called for (Heydorn and Grindley 1982) because of its importance in relation to linkages to other biomes. The *South African National Scientific Programmes Report No.130* was published in 1986 (Heydorn 1986) soon after this research. Some of the findings of this report (now 30 years ago) about the condition of estuaries in the Cape Province can briefly be summarized as follows:

Size of estuaries	Number of estuaries	Present Condition (%)			
		Good	Fair	Poor	Unscored estuaries
Large	35	6	83	11	0
Small	118	30	41	22	7
Total large and small estuaries	153	24	50	20	6

Figure 9. Present condition (%) of Cape Province estuaries.

Source: Heydorn 1986: 32.

A decade later, Cowan reported that ‘in South Africa, a country with very few wetlands, it has been estimated that over half of the wetlands have been destroyed and lost’ (Cowan 1995: 1). Vorwerk *et al.* (2001: 1) stated that ‘in general temporarily closed estuaries have been poorly researched’. Harrison *et al.* (2000) agreed with this view. Based on research about environmental factors, e.g. fish groupings (Vorwerk *et al.* 2003: 237–247) and the specific importance of estuarine mouth status, it is clear that the destruction of such continues to impact adversely on Half-collard Kingfisher populations. The declining population numbers of Half-collard Kingfisher in the Eastern Cape Province, was documented (now about 30 years ago) in 1998 (Barnes 1998: 196–218) with no ‘insurance policy’ to mitigate the destructive factors that affect Half-collard Kingfisher’s future survival.

If the above is placed into historical perspective, the following aerial photo shows how habitat distortion and loss because of sugar cane agriculture in KZN has reduced the vegetation in the immediate vicinity of small streams to the extent that little is left. An added problem is that there is hardly any buffer zone vegetation of about 50 m on both sides of the potential streams that Half-collard Kingfisher frequents.



Figure 10: Sugar cane plantations close to small, fast flowing stream.

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It is suggested that a type of a new conservation (read: proactive conservation) is required instead of post-event implementation of reactive intervention strategies when population figures have already taken the turn for the worse, to reverse this trend. There can be no doubt, specifically from an environmental historical perspective, that conservation sciences must recognise the need for a new ‘structure of scientific revolutions’ (Kuhn 1970) because a modern spectre haunts our physical world – the spectre of environmentalism. Neo-conservation calls for more than merely highlighting a fundamental theme for precautionary human action – a call that will influence the giving up of part of capital’s accumulation of wealth in a proactive rather than post-event rehabilitating investment.

According to Harrison *et al.* in a more comprehensive report, ‘[t]he South African 3 000 km coastline has approximately 370 outlets to the sea ranging from small coastal streams to large permanently open tidal estuaries. The current state of scientific information on the vast majority of these systems, however, is virtually nil’ (Harrison *et al.* 2000: 3). These habitats have always been important for Half-collared Kingfishers. Harrison *et al.* found that the water quality of 250 surveyed estuaries were that ‘[a]pproximately 41% of all estuaries are classified as “Good” or “Very Good”, 34% were classified as “Fair” and the remaining 26% were classified as “Poor” or “Very Poor” (Harrison *et al.* 2000: 139). Whitfield and Baliwe (2013a: 2) underlined this view when they wrote more than a decade later, that ‘the status of information on 79% of South African estuaries could be classified as nil or poor.’ The historiography of estuarine research in South Africa can complement the important publication about the science of estuarine research (Whitfield and Baliwe 2013b) in South Africa.

Suffice to say that a strategic conservation plan for Half-collared Kingfisher will not only be based on an understanding of their preferred habitat – e.g. estuaries and rivers, but also on the principles of environmentalist philosophy. Both necessitate continued interdisciplinary estuarine science research outputs. For Whitfield and Baliwe, the expected outcomes of future estuarine research seem bleak. In their study of the volume of research done on South African estuaries, one of their conclusions was the

following: ‘From a low base in the 1950s and 1960s, virtually all outputs [read: scientific research results] went from strength to strength until beginning of the 1990s, after which they went into decline’ (Fig.12). They continued that: ‘Indeed, the number of these highly active researchers declined by 50%, from 42 in the period 1972–1981, to 21 in the period 2002–2011 (Whitfield and Baliwe 2013a: 2). The important scarce resource viz. scientific estuarine research results about the very habitat that Half-collard kingfishers require for their existence, tend to become scarcer in future. The following reflects the above more clearly when the authors wrote: ‘Given its specialized habitat requirements, the Half-collard Kingfisher is of great value as an indicator species for the quality of river ecosystems throughout its range, particularly in a region with an overall scarcity and ever-increasing demand for water’ (Peacock in Taylor *et al.* 2015: 313). This integrated triangular complex of research, habitat, and a conservation strategy for Half-collard Kingfisher has been compromised over time. This results in the scarce resource allocation which suffocates conservation outputs.

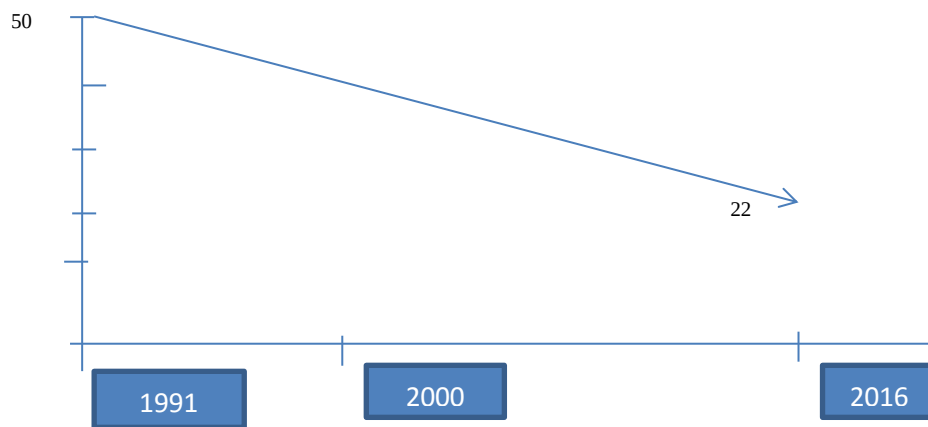


Figure 11: Declining estuarine research outputs.
Source: Whitfield and Baliwe 2013a: 2–3.

Of importance for this research about Half-collard Kingfisher, is the *National Biodiversity Plan for South Africa* that was published in 2014. Its significance lies in the following wisdom: ‘The main objective of this analysis was to develop a biodiversity plan for the estuaries of South Africa by prioritising estuaries and establishing which should be assigned Estuarine Protected Area (EPA) status. This analysis represents a significant milestone in that it is the first biodiversity plan to include all estuaries of South Africa, providing the first national set of priority estuaries’ (Van Niekerk and Turpie 2012: v).

This first internally consistent set of water quality data for 66% of South Africa’s estuaries (Harrison *et al.* 2000: 151) reflects their relative status as follows:

Present condition %				
Very good	Good	Fair	Poor	Very poor
3	38	34	7	19

Figure 12. National water quality of South African estuaries.

Source: Harrison *et al.* 2000: 140 (adapted).

From the brief discussions about forests and water, suffice to say that forests, estuaries and river channels are subject to dynamic and regular changes because of anthropogenic-induced transformations. The quality of these three (and other) habitats and related biodiversity, are important for Half-collared Kingfishers. They are hotspots of biodiversity and possible migration routes. In addition, where habitats of Half-collared Kingfishers are present, they need to be correlated with sections where they are absent. Lastly, future research needs to investigate the response of Half-collared Kingfishers to changes in the environment (Kajtoch and Piestrzyńska-Kajtoch 2016: 164–175).

4. Macro environmental spaces

Modern enviro-history recognises that local, regional and trans-national interpretations of processes and events are giving way to their global contexts (Engelbrecht 2012b; Engelbrecht 2014b). This point that was made 15 years ago at an Environmental history Workshop held in KwaZulu-Natal, South Africa (Beinart in Dovers 2002: 215–226). A historical overview of research published in *UPDATE*, also testifies to the popular growth of global interpretations of the local. These interpretations have gained a noticeable foothold firmly into social sciences, to the extent that they have being referred to as having made the ‘spatial turn’. It is interesting to note that the historiography about Half-collared Kingfisher’s preferred habitat in South Africa had its origin during the inter-war period and that the earliest writings about Half-collared Kingfisher came from the first reports about East Africa.

Since the notion of e.g. ‘space’ (local, regional or global) transcends traditional perceptions of its geographic confines, space and place are no longer viewed as neutral. Instead, they are increasingly contested as well as being viewed as normative in nature. In this regard it is important to remember that the South African history has been fraud with armed conflict (Couzens 2014). The Eastern Cape region of South Africa (Peires in Ruiters 2011: 42–59) endured the so-called Hundred Years War, and armed conflict in Natal finally ended with the British annexation of Zululand in 1897. Contestations were not only of the military kind. At a discursive level, the debates between first generation ornithologists made this clear. Secondly, the literature about 19th century armed conflict during the colonial period leading up to 1902 in South Africa, gives a good account of the impact that armed conflicts must have had on the regional environment.

The preferred habitat of Half-collard Kingfisher is sensitive, and is experiencing a long-term net loss. This means that their successful conservation will need prolonged resource investment. Armed conflict hugely contributed to the fragmentation of a scarce resource – their preferred and very specific habitat. Comprehensive research is required to quantify the impact of war on habitat decline in South Africa. It should address the notion of ‘moving fragmentation of habitat frontiers’ in the sense that habitat fragmentation moves in tandem with the distribution of war zones across geopolitical and environmental ‘frontiers’. The political history of the former homeland policies that lasted several decades in South Africa can be interpreted in the same manner. Thirdly, and pertaining to this study, timber plantations also ‘moved’ (expanded and contracted) because of land-use and farming techniques of modern agri-industry. Not only did improved technological farming practices yield higher returns, but land occupancy continues to take place at the expense of the environment and biodiverse regimes. In the fourth instance, the intensification of grazing regimes, the use of pesticides and fertilizers, drainage of water-based land and over-extraction of water, are some of the historical forces of production that were the material conditions of humans. They changed our consciousness about conservation and environmental worlds. But different worlds are reflections of the ideas of the ruling class that allocates scarce resources across society – also on behalf of the conservation industry. This manifests itself in the development of class antagonisms which mirrors in the history of conservation interests. In this regard, loss of marginal habitats of Half-collard Kingfisher is at the centre of theories and practices of contested spaces, places and interpretations.

South African diverse cultures and consumption behaviour continues to place strain on ecologies that extended backwards into colonial rule. Post-colonial and -apartheid structural adjustment programmes feature prominently in this. Scholars of dependency and development and under-development theories have long been outlining how 20th century’s demands for and on natural and human resources are enriching the metropole, while impoverishing its periphery. This popularized anti-colonial critique in e.g. Africa, is of course captured in traditional belief systems. During the last decade of the 20th century and well into the first two decades of the 21st century, evidence exposed the increasing role of the ANC’s political elite – also called the *Wabenzi*: the class who drives around in Mercedes Benz motor vehicles (Muller in Mc Lennan and Munslow 2009: 225) – with a ‘resources grab mentality in South Africa (Engelbrecht 2016b), impoverishes society, in material and moral terms. This is an example how state mismanagement directly impacts on the inequitable allocation of scarce resources needed for environmental conservation projects in newly created spaces and places of ecological worldmaking. Research by enviro-historians testifies to this over four decades.

South Africa has a long history of commitment to global conservation. As fifth contracting party to the Ramsar Convention in 1975, long before it became common practice in the public domain to talk about the country’s relative water-stressedness (Turton *et al.* 2003: 7; Taylor *et al.* 2015: 20), we usually conserve what we care for, yet ‘birds in South Africa are not doing well’ (Abrahamse in Taylor 2015: 6). Ornithological conservation is not a major priority for government. Humans are the

cause for the need for increased conservation (Molewa 2014: 4) and only humans can solve the self-induced environmental (and other) problems. On the one hand, popular thinking advocates the necessity for increased conservation of South Africa's most threatened habitats and their related bird conservation initiatives (Herbst in Taylor *et al.* 2015: 7) as a minimum condition to prevent future environmental inhabitation of preferred habitats. But this view raises another red flag. The decisions that will (or not) be taken in the immediate future, will influence the environment of the next hundreds of decades. The history of conservation outcomes has shown that conservation actions have only proven successful when collective cooperation directed at scarce resources in agreed to strategic directions, are holistically implemented. As a consequence, *a second school of thought argues a strategic turn away, meaning not to conserve more but rather having to conserve less*. Modern human consumption needs to achieve the 'perfection of waste' state (Marcuse 1966: ix). It places a critically new perspective on the relationship between theories of 'development' and the *prevention* of waste. Instead, voices in favour of neo-conservation already allude to this paradigm shift that focuses on human behavioural change. The objective is *an enlightened new relationship* with the non-human world. This means that by simply looking at trees and water as the Half-collared Kingfisher habitat is too simplistic.

One of the problems highlighted by the history of conservation philosophy, are the constraints in which to actually *do things*. This is a reminder of Marx's XIth Theses on Feuerbach that he wrote during the spring of 1845, namely 'philosophers have only *interpreted* the world in various ways; the point is to *change* it' (Marx 1998: 571). It takes a long time to recognise that some form of deterioration has taken and continues to take place. More time passes before actions regarding the problem are taken. Between eventually implementing a plan and benefitting from its results, can take a long time, even decades. This means that the forces in and processes of destruction, are much faster than conservation outputs can yield. Add to this problem the questionable sustainability potential of strategic conservation plans, and the aggregate lapsed time in the recovery efforts of a conservation plan, the need for neo-conservation *praxis* becomes clearer. Clearly, traditional theory will no longer suffice.

Neo-conservation *praxis* finds clues in Critical Theory of the Frankfurt School (Biro 2011) that dates back to the 1920s. For the sake of perspective, Biro's three paradoxes of current environmental crises are restated as follows: firstly, although human have become increasingly powerful, they became at the same time even more vulnerable; secondly, human inequality has reached untold proportions as is evident in the multi-layered structures of capitalist society; lastly, despite environmentalism's growing recognition, the movement appears to be unable to mobilize proportionate scarce resources to bring about accelerated outcomes to change and reverse the trends of degradation. Yet, the growing current public awareness of conservation seems irrevocable. In this sense, enviro-history is both engagement and normative in character and either, local, regional of global in scope.

The implication is that neo-conservation that is no different from any other critical ecologies *en route* to create an ecological civilization (Sawyer 2015). None of these examples mentioned exist in a vacuum. Breeding peregrine in Manchester as an example, and elsewhere on England's cathedrals, churches, office buildings, hospitals etc., 'are now a spinetingling part of Britain's city soundscapes' (Packham 2016: 7). Instead, the adjacent spaces to the preferred habitats of Half-collared Kingfishers are considered neighbouring borderlands that serve as new important ecological contact zones that carry with them treasures of renewed analytical utility (Carse and Keiner 2016).

This raises more epistemological questions concerning the history of the socio-politics of space because conservationists are not country bound. Space has no geometrical connotation because philosophy gave rise to the emancipation of all sciences to the effect that they have a take on new productive dimensions. The intellectual shift away from the philosophy of geo-political space to what existing space is, covers three aspects: the *science of space*, the *discourse on space*, and the *knowledge of space* (Lefebvre 2012: 1–27). They combine different spaces: physical, mental and social spaces (Lefebvre 2012: 11) – spaces what we make are social constructs. This is rather different from traditional conceptions of conservation places.

From this, at least three inferences can be drawn: firstly, natural spaces are vanishing because every society produces its own new spaces, secondly, social spaces reveal social relations of production and reproduction that function on three levels: the level of social practice, the level of representations of space, and lastly, the level of representational spaces. Thirdly, because produced space is a product of knowledge, the focus of interest needs to shift *from things* in space *to production* of space (Lefebvre 2012: 26–33, 36–37). In this sense, produced space is the result of different ways in the process of our worldmaking and the outcome is a multiple of real worlds. It moves away from the concept of 'a single actual world' (Goodman 1978: 2). The combination of a variety of processes of worldmaking emphasizes the need to introduce a re-look at paradigm shifts. Goodman proposed that the ways in which worldmaking takes place, comprises firstly, of composition and decomposition – when taking things apart and putting them together in a reorganised manner. Secondly, in doing so different *weighting* is assigned to various constituent kinds. This reflects a specific manner of ordering. Thirdly, *ordering* includes priority, periodicity, repositioning of kinds. In such a process, and fourthly, some kinds are *deleted* and others *supplemented*. Lastly, these processes are characteristic of change, correlations and reshaping through a manner of *deformation* of the worldmaking process (Goodman 1978: 7–17). At the heart of any form of neo-conservation needs, are the different manifestations of all kinds of domination (Engelbrecht 2013c).

Debates about post-apartheid political thought play an important role in conservation *praxis* in South Africa. The demise of apartheid sparked theorising about future conservation philosophies as questions about e.g. basic human rights, landownership and services moved up the agenda and transcend the existing way of thinking and doing things. The meaning of citizenship is now often advocated as a 'political technology' (Bell 2014: 2018) that distributes power along geopolitical

economic and cultural lines in the form of entitlement-outcomes in the new framework of ‘normative justifications’ (Bell 2014: 418) thereto.

The history of the results of the efforts of humans to create a better world is not found in the once anticipated cumulative and direction realization of the stages of economic development as they equate to material progress (Rostow 1960). Instead, historical analysis regards the conservation-development-progress triad as a rightful question about the outcomes of worldmaking in environmental and enviro-historical terms. Development does not always equate to progress which does not guarantee successful conservation practices and outcomes that enhance biodiversity. Hence, we are faced with answering the research question relating to Half-collard Kingfisher’s. The golden era of developmental aid (humanitarian or otherwise) during the last quarter of the 20th century, have proven unsustainable and forced researchers to look back in the hope to find better ways into future conservation efforts. This means that history, more specifically, enviro-history and conservation *praxis* overlap because there are conservation lessons to be learnt through both. These lessons involve theories for social change, including ideological hegemony, the impacts of market fundamentalism, and past and present conservation practices. Enviro-history seems to swing the pendulum back to where it started: to human behaviour. Radically changed human behaviour must solve its self-inflicted problems in a proactive manner. McNeil (2005: 1) described this as follows: ‘Lately another historical moment of rapid environmental change has dawned, an era of environmental shock and awe, on this occasion brought on by a single species, the rogue *homo sapiens sapiens*.’

5. Some literature about Half-collard Kingfisher

The historiography about Half-collard Kingfisher literature in South Africa is the study of the written histories as they relate to this species. A detailed historiographical analysis of all the literature that pertains to Half-collard Kingfisher remains outstanding.

It is often said that historiographical study is too chronological in method and boring in outcome. But the challenges for all historians are more intricate as suggested because ‘[n]o document can tell us more than what the author of the document thought – what he thought had happened, what he thought ought to happen or would happen, or perhaps only what he wanted others to think he thought, or even only what he himself thought he thought’ (Carr 1974: 16). Of course, this also holds true for present literature and modern-day social media reports of observations in the field. A mitigating circumstance today, is the availability of almost immediate verification by mobile cell phone or digital camera photos.

Scholarly work about birds started to appear in the 20th century. The publication of the first issue of the *Journal of the South African Ornithologist’s Union* in 1905 marked the beginning ‘of ornithology as a serious science in southern Africa (Hockey *et al.* 2005: 10). About three decades

later, the *Southern African Ornithological Society* succeeded the *South African Ornithologist's Union* and a new journal, *Ostrich*, became the new mouthpiece for research results. The first publication of *Roberts* on 8 June 1940 marked the beginning of an instant bestseller and standard handbook about birds in Southern Africa (Maclean 1993: ix). Many subsequent editions (Second to Fourth editions, 1957–1978; Fifth edition 1985; Sixth edition 1993; Second impression 1996) and numerous reprints culminated in the now famous *Roberts VIIth* 2005 edition.

The extensive ‘Reference’ list (in excess of 130 pages) in *Roberts VIIth edition* (Hockley *et al.* 2005: 1145–1278) is the logical starting point of some observations about Half-collared Kingfisher literature. The historical method used in this article is to work backwards into primary and secondary sources published earlier. These sources take on many forms: journal articles (e.g. *Ostrich*, *Ibis*, *African BirdLife*), honours, masters and doctoral studies, conference papers, field guides, private correspondence (electronic and otherwise), social media platforms, the internet, audio discs, posters, pamphlets, newsletters, personal commentaries, personal notes taken in the field, photographs, paintings, sculpture or artefacts.

South African ornithological research grew steadily during colonial times. Early researchers had close connections with British and other colonial offices, institutes, societies, universities and publications that resulted in primary and secondary sources. One of the early researchers, François Le Vaillant (traveller, ornithologist, artist and writer) arrived in Cape Town in April 1781 and undertook several inland travels. He returned to the Netherlands in November 1784 ‘with a large collection of birds’ which became the ‘nucleus round which [...] Temminck developed the eventually famous Rijksmuseum van Natuurlijke Historie at the University of Leyden’ (Bokhorst in Krüger 1972:398). William J. Burchell travelled large regions of South Africa in 1811 and 1812 and (amongst other things) collected ‘265 different kinds of birds’ that he presented to The British Museum (Schapara 1953: x). Adulphe Delegorgue (who claimed to be a member of numerous French learned societies) wrote that his ‘first researches at Port Natal [c.May 1839] were primarily concerned with ornithology’ (Delegorgue 1990: 53–54). He ‘returned to France with very large numbers of species of all kinds’ for future research (Alexander in Delegorgue 1990: xxvi). A century later, Rear-admiral H. Lynes (1874–1942) published his findings of ‘an account of an ornithological visit to southern Tanganyika Territory made in 1930–31, in the company of my old friend of Sudan days, Mr Willoughby Lowe’ (Lynes 1934: 3). Lynes acknowledged that ‘practically the whole of the pioneer ornithological work in that territory [read: Tanganyika Territory at the time] has been done by German ornithologists’ (Lynes 1934: 3). Lynes had contacts with Zoologisch Museum in Berlin, the Dresden Museum, the British museum in London, and the Royal Botanical Gardens at Kew (Lynes 1934: 4). The importance of his account of the fieldwork done during 1931 and 1932 in southern Tanganyika were based on his observations about the human destruction of the natural habitat and the impact therefor on the distribution of birds in general (Lynes 1934: 19–23). He also made a few cryptic references to two Half-collared Kingfishers: first in relation to its colour, secondly that it has frequently been seen in the

vicinity of the Iringa River but never on the highlands, and lastly, that their breeding season is probably towards the end of the dry season (Lynes 1934: 57). Regular observations between December 1935 and December 1944 in the Van Ryneveld's Pass Irrigation Lake, Graaff-Reinet (South Africa) reported no Half-collard Kingfishers present.

The period between 1944 and 1952 added further published material on Half-collard Kingfisher's preferred habitat. Moreau wrote in 1944 that Half-collard Kingfisher in tropical Africa 'everywhere it is a bird of small streams rather than rivers, at any rate in tropical Africa, only those of which the banks are thickly wooded' (Moreau 1944: 161–177). A few years later P.A. Clancey (1951) dealt with size and the possibility of identifying a new species in East Africa's near coastal regions whilst not appearing in higher altitudes territories. Clancy did not describe their habitat in any detail. Similarly, the notes that Benson published on (then) Nyasaland in 1952 did not contain habitat information, instead, it dealt with wing measurements, species distinctions and anticipated colour variations of East Africa territories (Benson 1952: 149).

About a decade later J.M. Winterbottom wrote a series of articles in *Farmer's Weekly* during 1963 and 1964 that formed the basis for his book *The Farmer's Birds* of 1967. Winterbottom included Half-collard Kingfishers with those that 'hunt on dry land and catch insects and similar small creatures'. According to him, Swainson coined the name "Kinghunters" but it never became the official name (Winterbottom 1967: 95). He also described them as 'nowhere a common bird'; that they had 'a fondness for tree-enclosed waters' and 'is exceedingly closely related to the Kingfisher of Europe' (Winterbottom 1967: 96).

McLachlan and Liversidge (1972: 271) wrote that the preferred habitat is 'large streams to big rivers but may even be seen in coastal lagoons. Usually seen quietly perched rather low down on a branch or stone.' Arkell (1978: 176–181) dealt with Giant Kingfisher feeding and breeding biology but did not refer at all to Half-collard Kingfisher habitat. Clancey's study about taxonomic variances in Half-collard Kingfishers in various African regions, unfortunately made no specific reference to habitat except that 'the range of nominate subspecies is seen as a geographically disjunct' and their distribution as 'discontinuous' (Clancey 1978: 273, 275). Half-collard Kingfisher in Zimbabwe was reported to be vagrant, although 'unlikely that it moves extensively' (Irwin 1981: 190). They were found present at 'fast-flowing perennial rivers and streams, often where there are rapids with rocks and well-timbered banks'. Harwin's view about why Half-collard Kingfisher perches where it does, is because their weight is about twice that of Malachite Kingfishers and can therefore not use the same flimsy perches of perennial wooded streams where it 'feeds of small fish, frogs and crabs' (Harwin 1984: 390–391).

The first global red data book was published in 1966. 'The intent of the red data books was to systematize information on rare and threatened species so as to facilitate their conservation' (Brooke 1984: 1) and the first South African publication followed from this in 1976 as: *The South*

African Red Data Book – Aves. In addition to four specific objectives in the 1984 edition, the ‘book serves many more general purposes. It publicizes information on birds and their habitats for general conservation awareness, as a basis for decision making in the fields of natural resource management and environmental impact assessment. It serves as a crude instrument of environmental monitoring at national or regional level and as a detailed local contribution to the global red data books published by the IUCN’ (Brooke 1984: 1).

At the same time, Maclean summarized the habitat as: ‘fast-flowing perennial streams, rivers and estuaries, usually with dense marginal vegetation’ (1985: 375) and about a decade later he did not add any new or additional information (except for referencing: Moreau 1944, pp.161–177) in the 6th edition of Roberts’, to the existing knowledge of the habitat (Maclean 1993: 371–372). Carnaby (2014: 624) described Half-collard Kingfishers as small aquatic kingfishers that prefer rapids and fast-flowing water. The research by Mondajem *et al.* (1994: 342–343) about perching preference of Half-collard Kingfisher did not deal directly with their preferred habitat. They referred indirectly to it when they wrote that their ‘foraging behaviour determines the range and type of perch preference that varies between <1,5 m being rocks and reeds, and branches of trees and scrubs over 1,5 m’. According to Mondajem and co-researchers, the foraging success of Half-collard Kingfisher is not correlated to water depth although they may be foraging in shallow water because of their inability to forage away from river banks. This is because they may be restricted to foraging from perches. This seems to suggest that they rather have ‘a preferred foraging location in relation to water depth’ (Mondajem *et al.* 1995: 81–83).

In a full-colour article about the identification features of Africa’s Kingfishers, Hockey (1997: 61–65) compared their physical shape, size and colours, distribution ranges in colour coded keys, typical habitats, feathers and preferred food types. Besides the colourful distribution maps, he gave no detailed description about their preferred habitat.

Given the view (Barnes 2000) that the near threatened Half-collard Kingfisher abundance show a significant decline in the bushlands of KwaZulu-Natal as a result of the degradation of clear rivers that are fringed by riparian growth, Malan *et al.* (2007: 170) were surprised to find Half-collard Kingfisher in the bushlands of KwaZulu-Natal. This becomes more pronounced if we consider that Half-collard Kingfisher ‘requires at least 1 km of river territory when breeding’ (Woodall in Del Hoyo *et al.* 2017). If one then factor in the potential impact of historical deforestation of their already shrinking specialized habitat, then it is understandable that they are locally nomadic in response to changing conditions (Carnaby 2014: 624). They have to move from their generally preferred habitat to coastal lagoons, lakes and estuaries. This is consistent with the observations of Vormans (2015: 28) in his study of wetlands in the Buffalo City area when he concluded that Half-collard Kingfisher is highly likely to migrate to surrounding artificial waterbodies such as depressions that might well cater for their survival needs. Add to this the historical reality that at least three rates of habitat degradation

(namely low, medium and high intensity) need to be included in any enviro-historical study of past environment and habitats, then the matrix for analysis becomes even more multi-layered.

That historical and ongoing habitat loss and fragmentation remain major threats to Half-collard Kingfisher's survival, has been inadequately documented in the literature of the life-histories of this species and appears to be accepted as matter of fact. Enviro-history can contribute to an investigation into the history of historical habitat alternatives on offer to support genetically viable populations (Bista 2017: 66) of Half-collard Kingfisher species.

Conclusion

Despite the remaining 'terminological ambiguity' (Althusser in Althusser and Balibar 2009: 'Foreword to the Italian Edition') the relationship between knowledge and wisdom (Maxwell 1988) includes the word 'and' in our understanding of 'everything's'. Humans have always made their worlds and viewed their histories, in specific ways. Some pursue 'ands', others 'everything's'. Some pursue knowledge, others wisdoms.

Human historical relations to the spaces in these worlds, reflect that neo-conservation *praxis* can be seen to stem from critical thinking as well as from interdisciplinary scientific approaches. The apparent outcomes and 'advantages' of 'knowledge' in the newly created spaces of the Capitalocene for instance, is different when compared to outcomes of '[a]ncient peoples [who] adjusted their ways of life to bend with the dictates of nature' (Brown 1989: 17). The future of Half-collard Kingfisher in this article serves as an example because they are the passive recipients of the adverse influences of changes in these worlds. No doubt, threats to Half-collard Kingfisher's existence date back to, and gained momentum during, colonial South Africa (Engelbrecht 2012b) – as do conservation consciousness.

The overriding objective of neo-conservation *praxis* is to mitigate the path towards species extinction by applying some of the principles of Critical Theory to conservation philosophy. Because neo-conservation is multidisciplinary, it promotes unity in approach and method. It argues that we live in the Capitalocene where capitalism is the world-ecology of capital, where maladministration of scarce resources (e.g. private property, public interests and practices of culture) compromises liveable, equitable and ecological sustainable life (DeVore 2017: 644). Through Critical Theory all forms of domination is sought to be abandoned. In following Critical Theory, neo-conservation views all ecologies as inherently critical ecologies because of the current unsustainability of life in the wider sense of the word. As a result, neo-conservation is pro-active human conservation *praxis* in all configurations of relations amongst living organisms (Engelbrecht 2017: 1–4). Eric Hobsbawm (2000: xi) made this point more than 40 years ago: '[I]f historians wish to justify the resources society devotes to their subject, modest though these are, they should not write exclusively for other

historians'. After all, we make our world according to our own image – the Capitalocene, for all its shortcomings, is one mode of living in which all sciences can benefit from the other.

Neo-conservation calls for an urgent paradigm shift in contemporary thinking about conservation and ecology, away from traditional theory and its accompanying forms of domination – meaning away from human domination over nature and any domination over fellow humans. In this sense '[C]ritical theory remains critical when it reflects on its own assumptions in light of the struggles of the age, when it is willing to revise its own assumptions in light of the strictures of those struggles' (Zambrana 2017: 1). To merely replace traditional thinking with a morality that focuses on social (justice) and economic (material equality) systems is to remain captive in the Anthropocene. But at the same time, to argue in favour of nature that *is* value, is not to negate the importance of the social and economic spaces at all. Neo-conservation is more than promoting to protect our planet's ecosystems from the advance of free-market capitalism (Igoe and Brockington 2007: 432-449). Whilst capitalism in itself seems harmless, once in the hands of humans, it becomes harmful – but then, this seems to be true for all other –isms. Far from thinking 'that capitalism is the only possible future economic system' (Wickham 2010: 4), the reality is that neo-conservation needs to navigate the best ways possible through the pitfalls of capitalism.

The neo-conservation turn leaves behind the traditional belief that humans are the dominating force in nature – a force that drives capitalism through the workings of the state and its proxies in the spaces of civil society towards self-destruction. It is a move away from the capitalist 'purchasing economy' to an 'experience economy'. This article suggests that the ongoing debate between Anthropoceneists and Capitaloceneists (Moore 2016) is leaning towards the latter. In addition, it goes further than merely accepting traditional historical analyses that maintain that the Industrial Revolution unchained the driving forces behind capital and subsequent destructive world-making. It is based on class stratification and exploitation. Instead, in this way neo-conservation thinking is human-based change (as opposed to human-driven change) that attempts to close the divide between Human and Nature. Moving away from debating the 'value' of nature (Moore in Moore 2016: 78–115; Parenti in Moore 2016: 166–184), neo-conservations maintains that *nature is value*. Alternatively, there are not two different worlds: a human and non-human world, each with its own set of (in)justices or (de)values. The distinction between these two sets of perceived worlds is that they are at most only different in appearance, but rather that they are the same in their essence.

A fundamental principle in seeking to find new building blocks for neo-conservation is that humans need to conserve/preserve less and not more. It shifts emphasis from waste-management (being reactive) to non-waste management. This is going further than being proactive in nature because it aims to exclude any form of waste. This principle does not attempt to establish new connections or links or how best to manage existing linked systems between people, and with nature, but rather seeks to establish new relations of human *behaviour*. In this sense, neo-conservation is something we live, as opposed to something we do. It is pre-emptive (as opposed to pro-active) in

terms of causes rather than being post-event in attending to predetermined and unintended consequences or outcomes of human driven action/s. It is inherently more than being pro-active in a manner that makes it a meta-requirement for existing conservation *praxis*. Consequently, neo-conservation is not one of many ‘correct’ activities in the web of life; it is a web of life (Moore in Moore 2016: xi) and therefore world-environment in its own right. For this reason neo-conservation does not refer to the conservation *of* the world or to the ecologies *in* the world, instead, it is world-conservation and it is world-ecological.

As can be seen from the above, neo-conservationalism supersedes some of the shortcomings of human *praxis*. It underlines the view that humans do not have a conservation relationship with nature. Instead, *neo-conservation is a human relationship in nature* – embodied in a set of new virtues. This links neo-conservation to Critical Theory not because it brings about change, instead, *it is* change – therefore more than just social transformation that is embedded in the concrete struggles of the present (Zambrana 2017: 1). Because neo-conservation is change, it is future-orientated and considers the present already as history.

In this manner neo-conservation is, unlike the state that is a geographic, rather than geo-political, a social system of social relations and not simply a process of inputs, conversions and outputs of scarce resources (Easton 1965). Neo-conservation is based on thinking from outside conservation. It aims to overcome the primary and acute harmful outcomes of rationality inherent in traditional conservation theory. In this regard, Allanson (2001: 373) quotes Crookes and Turner about the increased awareness of ‘the ecological and socio-economic linkages which are undergoing both spatial and temporal co-evolution’ (Moore in Moore 2016: 5). Curricula change for conservation and environmental sciences would go a long way to more productively promote interdisciplinary research. But these are only necessary and not sufficient conditions. New courses of actions and applications of methods are proposed (Kalron 2013). For this reason, neo-conservation *praxis* cannot ignore that ‘entire worlds [...] turn around plants’ (Myers 2017: 1) and place new emphasis on ‘plant/people intimacies’ (Myers 2017: 1) that ‘binds plants and people in projects of co-becoming’ (Myers 2017: 1).

The objective of projects of co-becoming is that neo-conservationalism would manifest itself in e.g. bird conservation *of* and biodiversity *as* critical ecologies that are revealed in terms of its own history. In this regard, Half-collared Kingfishers were as far back as 1967 described as ‘nowhere a common bird’ (Winterbottom 1967: 96); then as a common bird (McLachlan and Liversidge 1972: 271); later as an uncommon resident (Maclean 1993: 372; Sinclair *et al.* 1997: 254) and finally as widespread but uncommon (Hockey *et al.* 2005: 174). In addition, when we interpret the distribution map of Half-collared Kingfisher (Peacock in Taylor *et al.* 2015: 312) against the back ground of the three major biogeographical regions that pertain to estuaries in South Africa (Whitfield and Baliwe 2013a: 1) as well as the numerous maps in the National Estuary Biodiversity Plan for South Africa (Van Niekerk and Turpie 2012), then it becomes clear that the scarce resource of relatively small inhabitable ecologies of Half-collared Kingfisher are truly critical in their nature and scope. Its

criticalness is exacerbated by a theme that is under-represented in literature – the theme of domination, whether it is domination of humans over nature, or domination of humans over fellow humans. One can conclude that the longstanding enviro-historical consciousness does not seem to be incongruent with the desired outcomes of environmentalism in everyday practical life.

The circular relationship between humans and nature, where the former settles in attractive areas (mostly around water regimes), does so where commodification of natural systems can be pursued. The results of these are evident in the relationship between Half-collared Kingfishers and their preferred habitats – the declining species numbers and the degradation of estuaries, serves as an example of contested spaces.



Figure 13: Habitat fragmentation and loss for half-collared Kingfisher in KZN.

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The enviro-historical relationship between humans and nature dictates our obligation towards sustainable wise-use practices and the conservation of life because all ecologies are by nature critical (Biro 2011). It is the historically different forms of domination in society that lies at the heart of human existence in and with nature. Humans have dominated the natural environment and their fellow humans since the earliest times. This domination for domination continues to manifest itself in a variety of forms at all levels of society (Engelbrecht 2014a; 2014b; 2015). Despite the achievements of science and the high tide of 21st century enlightened human *praxis*, the latter still seems to have escaped us (Horkheimer 2004). And yet, in the 1940s, Horkheimer and Adorno set out to ‘explain why humanity, instead of entering a truly human state, is sinking into a new kind of barbarism’ (Horkheimer and Adorno: 2002: xiv).

Neo-conservation would do well by exploring debates about commoning and property ownership considerations and reconsiderations. Since it is unlikely to think that neo-conservation would do away

with the realities to the Capitalocene, more realistic seems to be to reconsider fundamentals of ‘bundeling’ approaches (DeVore 2017: 646) e.g. ‘private’ ownership, or ‘owner’ship, or ‘exclusive use’ considerations. This requires normative reconsiderations of nature and social values regarding forests, grazing lands, or, the preferred habitat of Half-collard Kingfishers. In this sense, neo-conservation refocuses emphasis away from ‘private’ land ownership towards the worth of social and official relations of recognition. In practice this requires a new *praxis* of habitat use and bordering scarce resources.

The above suggests that human space-use practices continue to be characterised by all sorts of contestations. Human consumption *and* global interdependencies together with human consumption of global interdependencies, necessitate that neo-conservation takes cognisance of the position and role of the capitalist state. Recent studies about Max Horkheimer and the Critical Theory of the Frankfurt School, repeatedly discussed Horkheimer’s beliefs about the ‘primacy of the political’ (Jay 1996: 47, 53, 118, 155, 163; Abromeit 2011: 405, 407, 420, 430). Only a year ago, Parenti wrote: ‘Capital’s world of self-interest and private accumulation depends upon non-capitalist values, non-capitalist institutions, and non-capitalist forms of production and reproduction to survive’ (Parenti in Moore 2016: 166). A brief look into the role of the state in the formation and exploitation of forestland, farming industry and ‘conservation’ *praxis*, continually put the conservation industry on the back foot. In this sense, the capitalist state is more than a power-wielding institution – it is the *world-ecology of capital* (Parenti in Moore 2017: 167) – it does not have a relationship with nature – rather, *it is a relationship*. Neo-conservation argues its existence within that relationship and *not* having one *with* the state. The fragmented, exploited and decimated natural environment by the geopolitical state in which Half-collard Kingfisher is struggling to survive, are challenges for the neo-conservationist because the state appropriates the very same space the Half-collard Kingfisher rely on and change it into a state of world ecology of its own capital. For this reason, neo-conservation realizes that it needs to contend with the ‘use-value’ (Parenti in Moore 2016: 167) that the state attaches to nonhuman nature.

Throughout the history of the modern state, the state remains the landlord (Parenti in Moore 2016: 170) of geopolitical space of and for all forms of life. An overview of the South African enviro-historiography continues to show the dialectical relationship of Human vs Nature on traditional conservation narratives. Land conquest and contestation, human settlement and the ongoing culture of entitlementism, habitat conversion and ecology prioritization for conservation management, persist in pointing towards a historical disconnect between history and society (Carruthers 2005b). Schulz (2017: 127) argues similarly that it seems no longer plausible to continue to make a distinction between the scientific and the political worlds. As a result, enviro-history is written and neo-conservation of Half-collard Kingfisher also resides, in the world-ecological space of the Capitalocene. Without moving away from traditional conservation biology, Half-collard Kingfisher

could remain at the mercy of continuing environmental degradation – the state makes preferred habitat available, or takes some of it away, often without replacing the loss.

Neo-conservation argues that since humans created global warming (Morton 2014: 1–2) *they* have to fix ‘global warming’s erasure of the human by Earth systems. Furthermore, ‘the very moment at which philosophy says you can’t directly access the real, humans are drilling down even deeper into it’ (Morton 2014: 2). The problem with all accounts (this one included) of history (traditional or of critical nature), is that they ‘leave behind a collection of silences’ (Di Muzio and Dow 2017: 2) and if neo-conservation *praxis* cannot mitigate the downward spiral of the extermination of life by accumulation in the Capitalocene to reverse this trend, then there will be no enviro-history to tell the stories of the ‘silencing’ of the Half-collared Kingfisher. At the current rate of population decline, statisticians can probably calculate accurately, when, in the Capitalocene the tragic date of extinction might be.

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